

Title (en)
Integrated memory with magnetoresistive memory cells

Title (de)
Integrierter Speicher mit Speicherzellen mit magnetoresistivem Speichereffekt

Title (fr)
Mémoire intégrée avec des cellules magnétorésistives

Publication
EP 1176605 A3 20020206 (DE)

Application
EP 01113437 A 20010601

Priority
DE 10030234 A 20000620

Abstract (en)
[origin: KR20020000123A] PURPOSE: Integrated memory having memory cells with magnetoresistive memory effect is provided to reduce outlay for repairing the memory in the event of a defect of a memory cell which triggers a short between a row line and a column line. CONSTITUTION: Any known GMR/TMR elements are suitable as the memory cells, provided they exhibit higher impedance than the column lines (BL0 - BLn) and the row lines (WLO - WLn). The memory here comprises an exemplary number of word lines and bit lines. The memory cells MC, which are arranged in a matrix-type memory cell field(1), are each wired between one of the bit lines BL0 to BLn and one of the word lines(WLO - WLn).

IPC 1-7
G11C 29/00; G11C 11/15; G11C 11/16

IPC 8 full level
G11C 11/14 (2006.01); **G11C 11/15** (2006.01); **G11C 11/16** (2006.01); **G11C 29/04** (2006.01); **H01L 21/8246** (2006.01); **H01L 27/105** (2006.01); **H10N 50/10** (2023.01); **G11C 29/00** (2006.01)

CPC (source: EP KR US)
G11C 11/15 (2013.01 - EP KR US); **G11C 11/16** (2013.01 - EP US); **G11C 29/832** (2013.01 - EP US); **G11C 29/70** (2013.01 - EP US)

Citation (search report)
• [A] DE 19914488 C1 20000531 - SIEMENS AG [DE]
• [A] US 6054330 A 20000425 - PHIPPS PETER BEVERLEY [US], et al
• [A] US 4283774 A 19810811 - SCHWARTZ SIDNEY J, et al
• [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 658 (E - 1643) 13 December 1994 (1994-12-13)

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1176605 A2 20020130; EP 1176605 A3 20020206; CN 1145167 C 20040407; CN 1337714 A 20020227; DE 10030234 A1 20020117; DE 10030234 C2 20030327; JP 2002083500 A 20020322; JP 3626116 B2 20050302; KR 100435094 B1 20040609; KR 20020000123 A 20020104; TW 511081 B 20021121; US 2002003727 A1 20020110; US 6442063 B2 20020827

DOCDB simple family (application)
EP 01113437 A 20010601; CN 01121928 A 20010620; DE 10030234 A 20000620; JP 2001185379 A 20010619; KR 20010034953 A 20010620; TW 90114830 A 20010619; US 88555401 A 20010620